Side differences in grip strength in breast cancer survivors with or without upper extremity lymphedema following mastectomy

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Keywords: Lymphedema; Strength; Breast; Cancer

Objective.– The aim of this study was to assess grip strength in breast cancer survivors with/without postmastectomy lymphedema.

Methods.– Bilateral arm circumference and hand grip strength (using hand dynamometer [kg]) were measured in 88 women. A breast cancer survivor was considered as having lymphedema if ≥ 3.0 cm of circumferential difference between both arms was present; 49 women had lymphedema and 39 did not.

Results.– Right and left hand grip strength did not show significant difference in individuals who underwent right side mastectomy ($P = 0.079$) with a trend to lower values for the right side, the grip strength between sides differed significantly in those with left side mastectomy ($P = 0.001$), with higher values for the right side. However, the presence of lymphedema did not seem to induce significant differences between the right/left handgrip strength ($P = 0.176$) in individuals with lymphedema and ($P = 0.266$) in those without. Univariate analysis of variance including age, handedness, affected side, and the presence of lymphedema as factors revealed that the only significant factor influencing grip strength side difference was the side of the mastectomy with axillary dissection ($P = 0.048$).

Discussion.– Side differences were not observed in grip strength in breast cancer survivors with/without upper extremity lymphedema following mastectomy in this study with a small sample size.

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P047-e

Ultrasound imaging for neurofibromatosis: From the physiatrist's perspective

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Keywords: Ultrasound; Periferal nerve; Neurofibromatosis

Background.– Neurofibromas – the main neoplasms that develop in the setting of NF – predominantly involve the peripheral nerves. They can be of different types i.e. localized, diffuse and plexiform. The plexiform neurofibroma has a serpentine-like appearance and characteristically involves a long segment of the nerve with its branches. This form is pathognomonic for NF type 1 and can potentially be malignant.

For peripheral nerve problems, a thorough physical examination combined with electrodiagnostic studies may usually suffice to ascertain the pathology. However, imaging might become necessary if the underlying cause is to be uncovered or, especially in cases with widespread involvement, to better understand the nature/extent of the disease. In this regard, with its numerous advantages (patient and physician friendly, cost-effective, does not contain radiation, provides dynamic imaging, etc.), US has become the method of choice for peripheral nerve imaging -not only for diagnosis but also for guiding a possible intervention/surgery.

The main spectrum of pathologies that are commonly scanned by US confines to the skin (epidermis, dermis, subcutaneous fat), nail and the nearby soft tissues/joints. In this short report (pertaining to 3 military recruits), we aimed to as well.

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P048-e

Unusual cause of lower leg pain

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Keywords: Deep peroneal nerve; Tumoral lesion; Schwannoma

Background.– A 35-year-old woman with a prior history of a T-cell lymphoma consulted us with chronic intermittent diffuse pain in the right foot and ankle presenting during exercise and at rest. There was no history of trauma. Initially, her complaints were assigned to an earlier described and confirmed on electromyography sensorimotor polyneuropathy due to chemotherapy. However, a trial of amitryptiline was not successful. Also, orthopedic insoles because of a collapsed arch did not have the desired effect. Later on, the pain was more stabbing and migrated towards proximally.

Results.– Magnetic resonance imaging of the lower leg showed a sharply defined fusiform tumor of the deep peroneal nerve. Elective surgery was performed. Histopathology confirmed the diagnosis of a benign Schwannoma.

Discussion.– An overview of the literature indicates that this case is rather atypical because of the localization of the Schwannoma and the clinical presentation. Schwannomas are mostly found in cranial and spinal root nerves. Previously described cases presented with a full or partial foot drop. This case demonstrates that atypical lower leg pain syndromes warrant a thorough workup.

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P049-e

Rehabilitation of patient with traumatic brain injury, femoral fracture and hip dislocation – A case report

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Keywords: Brain injury; Femoral fracture; Hip dislocation

Background.– Male patient was transferred to the emergency department after road car accident, with GSC = 7, moving both upper and lower limbs, with pupil symmetry and present pupillary light reflex. Imaging revealed multiple small brain lesions, right femur fracture (midshaft), unstable left hip dislocation and left pneumothorax. The patient was treated in the ICU for 12 days. Three days after his extubation, he was transferred to the orthopedic clinic and 2 weeks later was transferred to the PRM department.

Results.– From the first day, initiation of bed physical therapy (manual therapy, exercises). One week after, he followed rehabilitation program in the physiotherapy department. Initially, he was placed at the tilt table. Ten days after he started walking in the treadmill. He also started hydrotherapy in the pool. One month later, he was walking at the parallel bars with partial weight bearing of the lower limbs and finally walking with full weight bearing. Concurrently, he followed occupational therapy. The patient discharged improved, walking full weight bearing, slightly dependent in daily activities and in good psychological condition. FIM (initial): 28. FIM (discharge): 110.

Discussion.– The use of treadmill and hydrotherapy can be proved useful tools where full weight bearing is forbidden.

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P050-e

Diagnostic ultrasound in spontaneous bilateral bicipital tendon rupture